

Areas of Critical Environmental Concern

Miscoe, Warren and Whitehall Watersheds

Designation Date: July 17, 2000

Total Approximate Acreage: 8,700

Watershed(s): Blackstone and Sudbury-Assabet-Concord (or SuAsCo)

Municipalities(acres; % of ACEC): Grafton (3,010; 35%), Hopkinton (460; 5%), Upton (5,230; 60%)

Resource Summary

The Miscoe, Warren and Whitehall Watersheds ACEC is approximately 8,700 acres in size, and is located in the towns of Grafton (3,010 acres), Hopkinton (460 acres) and Upton (5,230 acres). The resources of the ACEC are located in portions of five sub-watersheds. They include Miscoe Brook, located principally in Grafton; Warren Brook, located principally in Upton; and a small portion of Center Brook, located principally in Upton; all of which drain southerly to the West River and the Blackstone River. They also include small portions of two sub-watersheds in Upton and Hopkinton, one of which flows into Whitehall Reservoir, that drain northerly into the Sudbury River, part of the larger Sudbury, Assabet and Concord Rivers (or SuAsCo) watershed.

The distinguishing characteristics of these sub-watersheds are that they are located at the headwaters of their respective watersheds; provide crucial inputs of high quality surface water to downstream waters and communities; share a large expanse of unfragmented and diverse wildlife habitat and public and private open space extending across drainage divides and municipal borders; and are subject to intense and ever-increasing development pressures. The Massachusetts Turnpike is located along the northern boundary of the ACEC, and Route 495 is located to the east of the ACEC.

The area provides important surface water and ground water inputs to public drinking water supplies. These include a Zone II aquifer recharge area for a public well in Upton; tributaries (also classified as Outstanding Resource Waters pursuant to 314 C.M.R. 4.00, Massachusetts Surface Water Quality Standards) to a surface water drinking reservoir (Sandra Pond, or Westboro Reservoir) in Westborough; a portion of an Interim Wellhead Protection Area (IWPA) for two public wells in Hopkinton (next to Whitehall Reservoir; a non-transient, non-community public well providing 100% of the drinking water at the Touchstone Community School in Grafton; and medium yield aquifer areas in Grafton.

Rare species habitats are located throughout the ACEC. Five state-listed species occur within the ACEC. These species include the Jefferson's Salamander, Wood Turtle, Spotted Turtle, Marbled Salamander; and a dragonfly (name protected). According to maps and data prepared for the review of the nomination by the Department of Environmental Management (DEM), using the Geographic Information System (GIS) of the Executive Office of Environmental Affairs

(EOEA), rare species habitats cover approximately 1,680 acres or 19% of the area.

The Miscoe Brook watershed contains a large, unique and valuable wetlands complex, the Great Meadow system, and the water quality of both Miscoe and Warren Brooks supports prized native brook trout populations. Agriculture and forestry are important components of the overall resource complex. The area contains unique and highly significant archaeological and historical resources. Approximately 89% of the ACEC is comprised of forest, non-forested wetlands, and open lands and farmland.

According to GIS data, combined public open space and Chapter 61/61A/61B lands cover approximately 3,900 acres, or 45% of the ACEC. Approximately 2,400 acres of open space land - about 28% - are located within the ACEC. Of this open space total, Upton State Forest, owned and managed by DCR, covers about 1,810 acres, or 21% (230 acres in Hopkinton, and 1,580 acres in Upton). Municipal open space covers about 570 acres. Major town properties include Silver Lake, the 52-acre Merriam Road Conservation Area, and the 48-acre Blithewood Property in Grafton, and the 230-acre Warren Brook Watershed Conservation Area in Upton. A large portion of the ACEC in Grafton is included in the 1982 Massachusetts Scenic Landscape Inventory.

Water bodies included (partially or entirely) in the ACEC

Lakes, Ponds: Silver Lake, Cider Mill Pond (*Grafton*); Lake Wildwood, Baker Pond, Davidson Pond, Dean Pond (*Upton*); other small, unnamed ponds (*Grafton, Upton*)

Brooks, Creeks: Miscoe Brook (*Grafton, Upton*), Flagg Brook (*Grafton*), Warren Brook (*Upton*); other small, unnamed brooks (*Grafton, Hopkinton, Upton*)